

# High Frequency Ferrite Beads – SF Series



**AFBC-SF0402**

Request Samples



Check Inventory



1.0 x 0.5 x 0.5 mm  
**RoHS/RoHS II Compliant**  
 MSL Level = 1

## Features

- Internal silver lithographic layers
- EMI suppression at High Frequencies
- Monolithic inorganic material construction
- DC resistance as low as 0.10Ω
- Magnetically shielded

## Applications

- Electronic control Units (ECUs)
- RF transceiver modules
- Antennas
- Infotainment system
- ADAS
- Industrial connectivity (IIoT)

## Electrical Specifications

Part Number	Impedance (Typical)	DC Resistance	Rated Current
Units	Ω ± 25%	Ω Max.	mA Max.
Symbol	Z	R <sub>DC</sub>	I <sub>R</sub>
AFBC-SF0402-101	100	0.100	1100
AFBC-SF0402-251	250	0.150	1200
AFBC-SF0402-331	330	0.300	650
AFBC-SF0402-461	460	0.170	900
AFBC-SF0402-771	770	0.500	500
AFBC-SF0402-152	1500	0.600	400
AFBC-SF0402-262	2600	0.800	350
AFBC-SF0402-352	3500	1.350	270
AFBC-SF0402-462	4600	1.650	270

## Test Conditions and Equipment

Z Test Frequency: 900MHz

DCR: High Accuracy LCR Meter – HP4263A

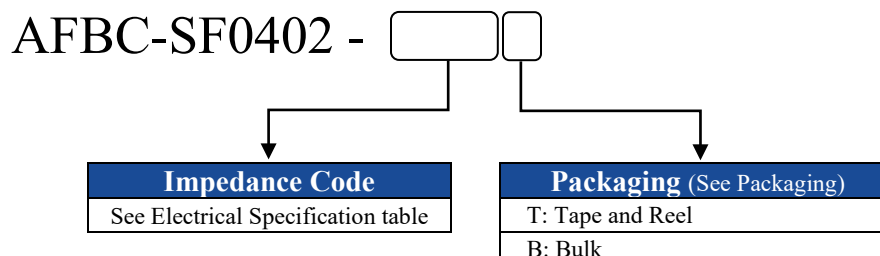
IR: Rated current applied when the chip surface temperature rise just 20°C against ambient temperature.

**Operating Temperature:** -40°C to +85°C (Including Self-Temperature rise)

**Storage Temperature:** -10°C to +40°C and RH 60% (Max).

**AFBC-SF0402 is RoHS Compliant and Pb free**

## Part Identification



5101 Hidden Creek Ln, Spicewood TX 78669  
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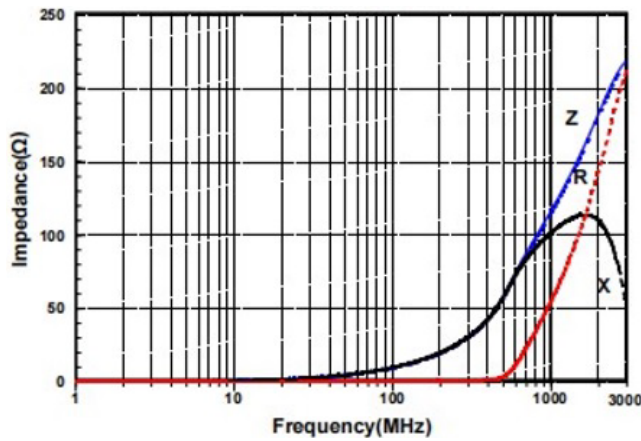
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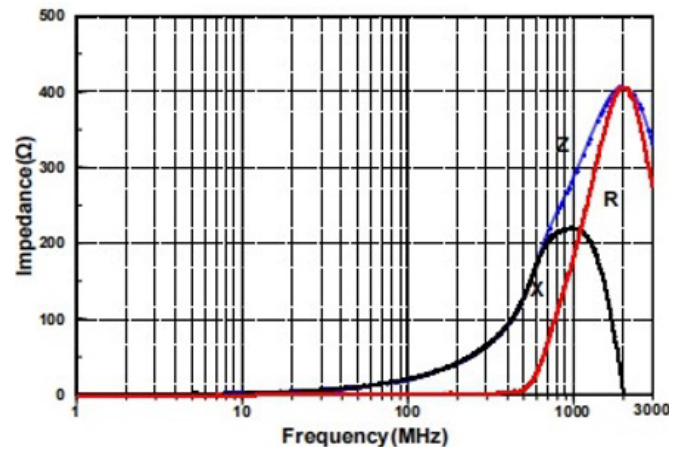
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## Performance Graphs

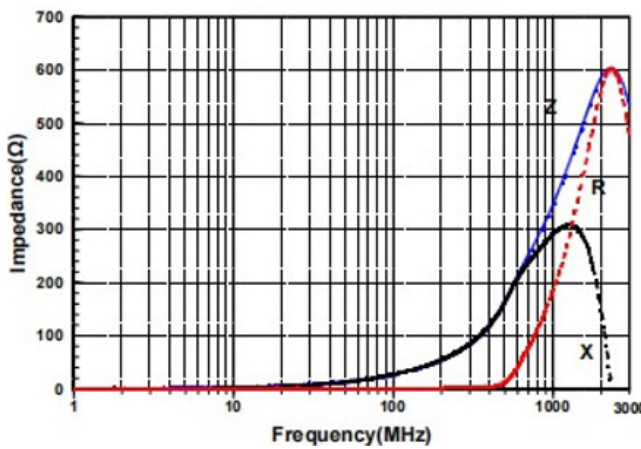
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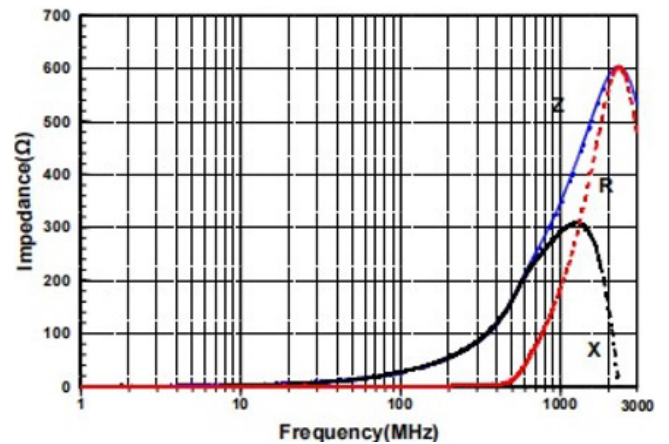
AFBC-SF0402-251



AFBC-SF0402-331



AFBC-SF0402-461



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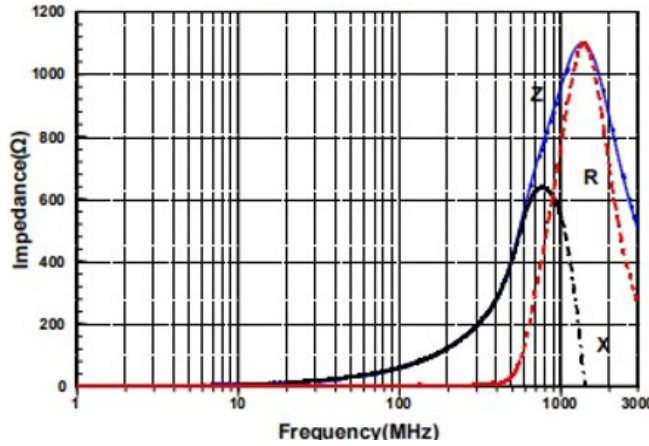


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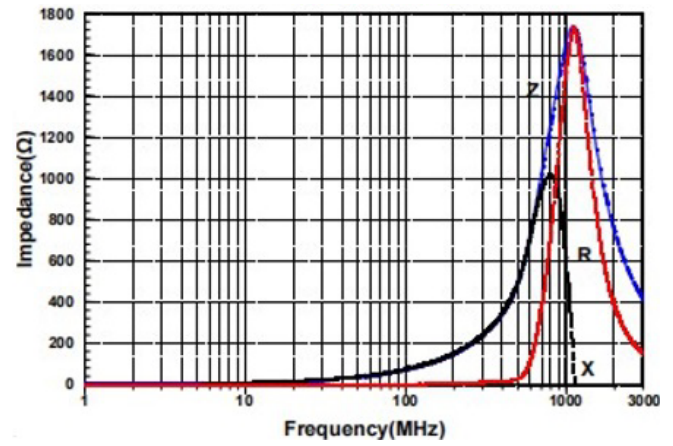


1.0 x 0.5 x 0.5 mm  
 RoHS/RoHS II Compliant  
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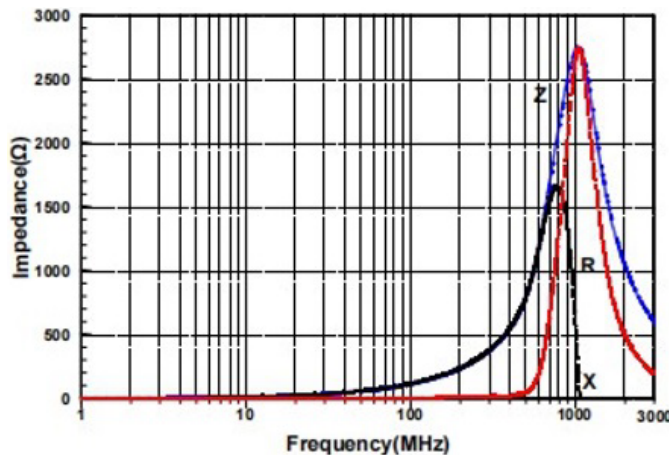
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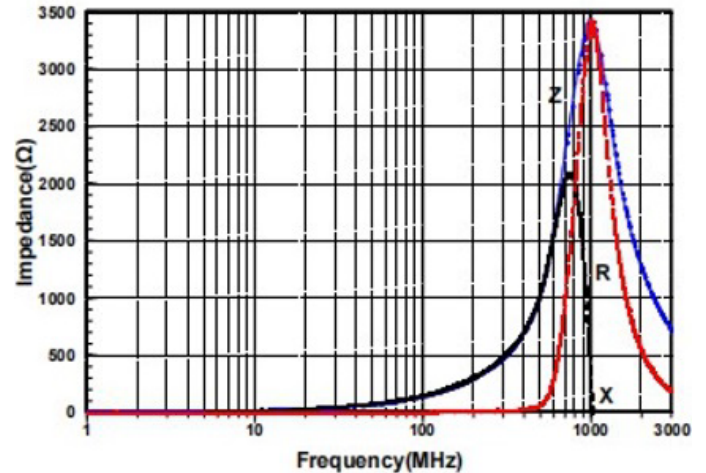
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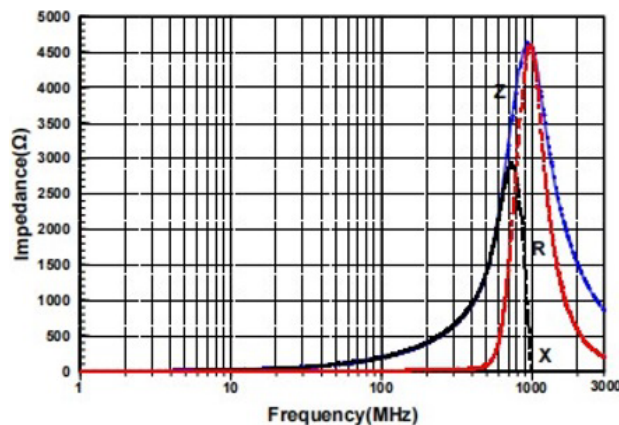
AFBC-SF0402-262



AFBC-SF0402-352



AFBC-SF0402-462



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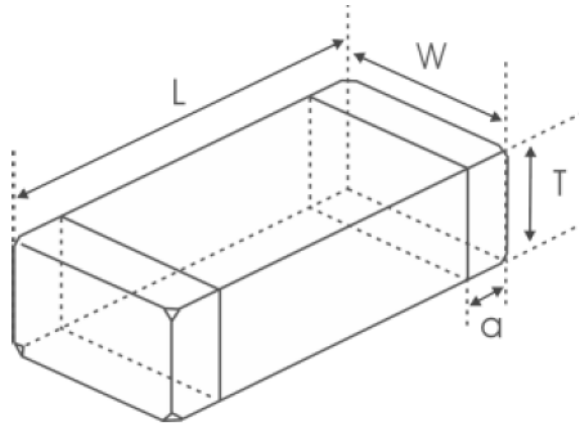


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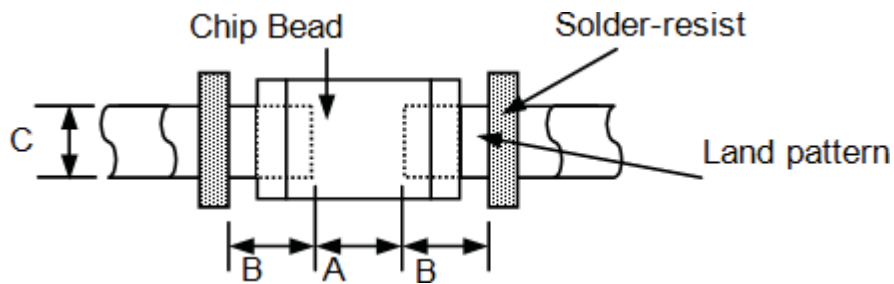


**1.0 x 0.5 x 0.5 mm**  
**RoHS/RoHS II Compliant**  
**MSL Level = 1**

## Mechanical Specifications



L	W	T	a
1.00±0.10	0.50±0.10	0.50±0.15	0.25±0.10



A	B	C
0.60 ~ 0.80	0.60 ~ 0.80	0.60 ~ 0.80

Dimensions: mm



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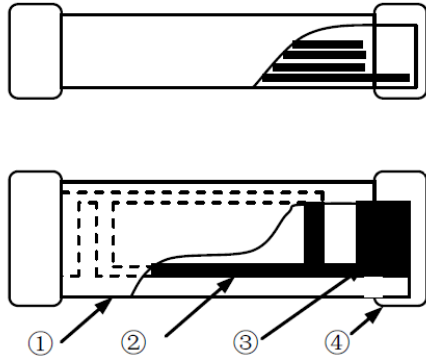


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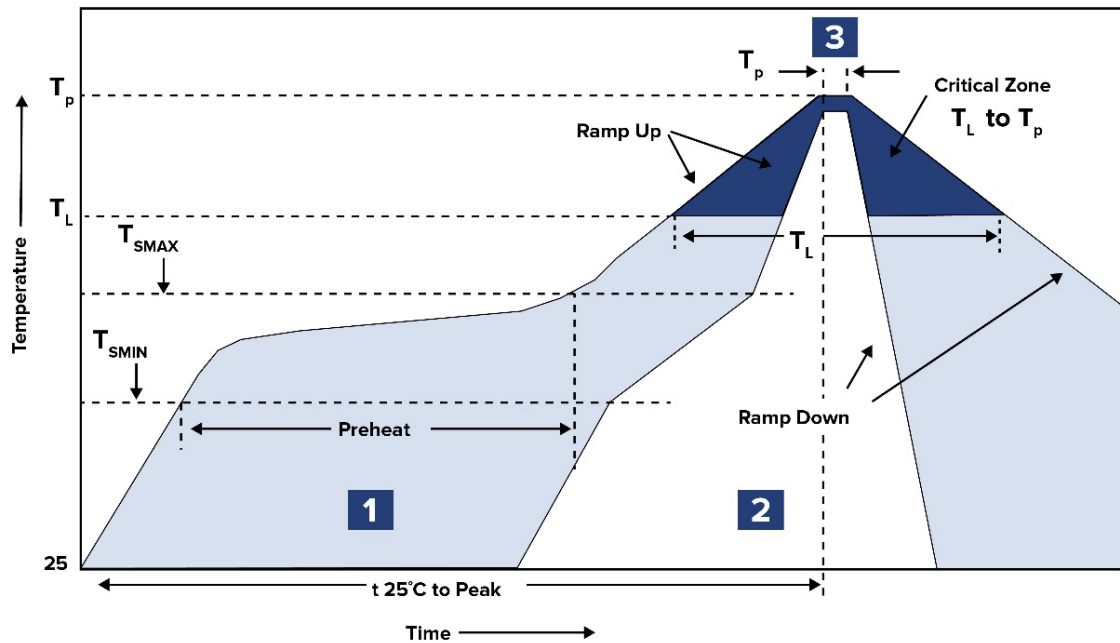
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RoHS/RoHS II Compliant  
MSL Level = 1

## Materials



	Part Name	Material
1	Base Material	Ceramic powder
2	Internal Conductor	Ag paste
3	Terminal Electrode	Ag
4	Electrode Plating	Ni-Sn

## Reflow Profile



Zone	Description	Temperature	Times
1	Preheat	$T_{SMIN} \sim T_{SMAX}$ 150°C ~ 200°C	60 ~ 120 sec.
2	Reflow	$T_L$ 217°C	60 ~ 90 sec.
3	Peak heat	$T_P$ 260°C ±5°C	10 sec. MAX



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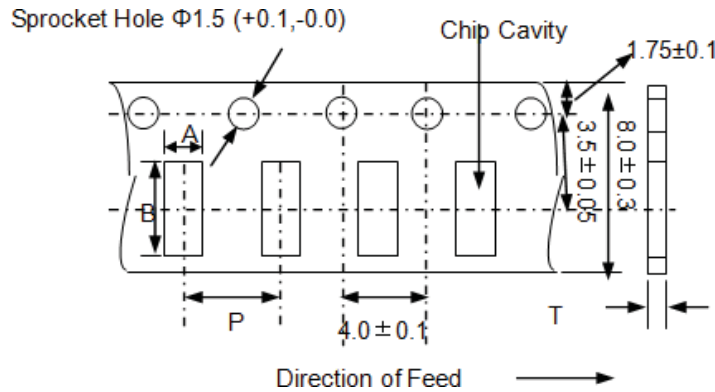
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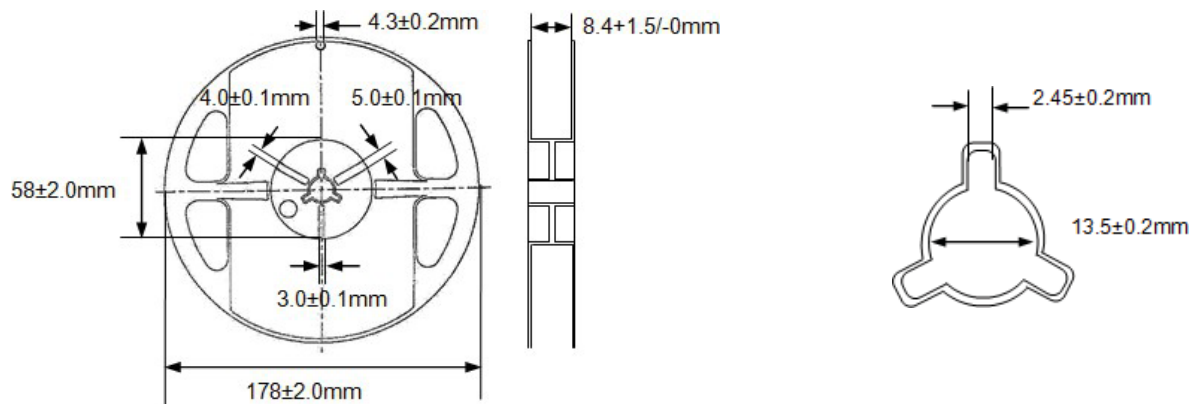
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**RoHS/RoHS II Compliant**  
**MSL Level = 1**

## Packaging

**Tape & Reel: 10K pcs/reel**



Series	A	B	P	T max
AFBC-SF0402	$0.65 \pm 0.1$	$1.15 \pm 0.1$	$2.0 \pm 0.05$	0.8



Dimensions: mm

**ATTENTION:** Abracon LLC's products are Commercial-Off-The-Shelf (COTS), which are designed, intended and validated for use in commercial, industrial and automotive applications. The customer is responsible for testing and verifying the performance of an Abracon solution to meet their system-level requirements.



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